

STOMACH CANCER MORTALITY AMONG AGRICULTURAL WORKERS: RESULTS FROM A BRAZILIAN DEATH CERTIFICATE-BASED CASE-CONTROL STUDY

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Backgrounds and aims: The use of pesticides in Brazil is very intense. Thus, it is important to assess the risk of diseases related to the use of these substances, particularly stomach cancer, which has been closely associated with pesticide exposure in several studies, especially among agricultural workers. This study aimed to estimate the risk to die by stomach cancer among agricultural workers from an intensive pesticide-use area in Brazil, between 1996 and 2005.

Methodology: Therefore, a death certificate-based case-control study was designed to achieve this objective. Cases were individuals from both genders, 20 or more years old, for whom basic cause of death was stomach cancer. For each case two controls were randomly selected, from the universe of deaths, excluding those from neoplasms and hematologic digestive system diseases. In addition, controls were matched with cases by sex and age. Crude and adjusted odds ratios were then calculated to estimate the magnitude of the risk.

Results: Results showed that agricultural workers were at statistically significant higher risk to die by stomach cancer (OR: 1.41; CI95%: 1.10-1.82) compared to non-agricultural workers. Stratified analysis revealed that the magnitude of such risk was higher among younger (OR: 3.34; CI95%: 1.58-7.08) agricultural workers. Stratification by sex showed that magnitude of stomach mortality risk was higher for male agricultural workers (OR: 1.51 CI%: 1.13-2.02) than for female ones (OR: 1.47 CI%: 1.12-1.93).

Conclusions: These results suggest that agricultural workers living in the Serrana Region of Rio de Janeiro State were at significantly higher risk to die by stomach cancer compared to non-agricultural workers.